

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A combination of an aqueous developer and a an aqueous regenerator wherein the aqueous developer comprises an organic solvent, a dispersing agent, and a first base, and has a pH between about 8 and less than about 13, and wherein the aqueous regenerator comprises an organic solvent, a dispersing agent, and an effective amount of a second base such that the regenerator has a pH at least 0.5 higher ~~greater~~ than the pH of the developer and wherein the K_b of the second base is greater than the K_b of the first base.
2. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein said aqueous regenerator comprises ~~comprising~~ an effective amount of the second base such that the regenerator has a pH of about 10 or greater.
3. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein said aqueous regenerator comprises ~~comprising~~ an effective amount of the second base such that the regenerator has a pH of about 11 or greater.
4. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein said aqueous regenerator comprises ~~comprising~~ an effective amount of the second base such that the regenerator has a pH of about 12 or greater.
5. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the aqueous regenerator has a greater conductivity than the developer.
6. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the aqueous regenerator organic solvent comprises an alcohol.

7. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 6 + wherein the organic solvent comprises benzyl alcohol, a phenoxyethanol, a phenoxypropanol, or combinations or derivatives thereof.

8. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 7 + wherein the organic solvent comprises esters of ethylene glycol or propylene glycol with acids containing alkyl groups of C₁₋₆ or ethers of ethylene glycol, diethylene glycol or propylene glycol containing alkyl groups of C₁₋₆.

9. (Withdrawn) The regenerator of claim 1 wherein the organic solvent comprises 2-(2-ethoxyethoxy)ethanol.

10. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein said aqueous regenerator comprises ~~comprising~~ between about 1 and about 12 weight percent organic solvent.

11. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein said aqueous regenerator comprises ~~comprising~~ between about 3 and about 6 weight percent organic solvent.

12. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the second base has a K_b of about 1 or greater.

13. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 comprising between about 0.1 and about 5.0 weight percent of the second base.

14. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the second base comprises a hydroxide.

15. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the second base comprises a metal hydroxide.

16. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the second base comprises sodium, lithium or potassium hydroxide.

17. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the second base comprises one or more bases wherein the K_b of the bases is greater than the K_b of the first base.

18. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein said aqueous regenerator comprises comprising a total of between about 4 and about 20 weight percent dispersing agent.

19. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein said aqueous regenerator comprises comprising a total of between about 7 and about 15 weight percent dispersing agent.

20. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein said aqueous regenerator comprises comprising a plurality of dispersing agents.

21. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the aqueous regenerator dispersing agent comprises a surfactant.

22. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the aqueous regenerator dispersing agent comprises an anionic, cationic, nonionic, or amphoteric surfactant or a combination thereof.

23. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the aqueous regenerator dispersing agent comprises an organic sulfate or sulfonate.

24. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the aqueous regenerator dispersing agent comprises an alkali metal alkyl sulfate, an alkali metal alkylnaphthalenesulfonate, or an alkali metal alkylbenzene sulfonate.

25. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the aqueous regenerator dispersing agent comprises sodium octyl sulfate, sodium methylnaphthalenesulfonate, sodium xylene sulfonate, sodium toluene sulfonate, or a combination thereof.

26. (Withdrawn) The regenerator of claim 1 wherein the dispersing agent comprises polyvinyl alcohol or polyvinyl pyrrolidone.

27. Cancelled

28. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 ~~27 wherein the third~~ further comprising a weak base that has a K_b of between about 1×10^{-2} to about 1×10^{-5} .

29. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 28 ~~27~~ comprising between about 0.1 and about 5 weight percent of the weak ~~third~~ base.

30. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 28 ~~27~~ wherein the weak ~~third~~ base comprises an amine.

31. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 28 ~~27~~ wherein the weak ~~third~~ base comprises monoethanolamine, diethanolamine, triethanolamine or combinations or derivatives thereof.

32. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 28 ~~27~~ wherein the weak ~~third~~ base comprises

sodium carbonate, potassium carbonate, sodium bicarbonate, potassium bicarbonate, trisodium phosphate, tripotassium phosphate or combinations or derivatives thereof.

33. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein said aqueous regenerator further comprises ~~comprising~~, a thickener, a conditioner, a preservative, a chelating agent, an anti-foaming agent, or combinations thereof.

34. Cancelled

35. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the pH of the aqueous regenerator is at least 0.7 higher than the pH of the aqueous developer.

36. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the pH of the aqueous regenerator is at least 1.0 higher than the pH of the aqueous developer.

37. (Withdrawn) A developer system for preparing printing plates comprising:

a developer unit containing an aqueous developer that includes an organic solvent, a weak base and a dispersing agent, and having a pH between about 8 and less than about 13, wherein the developer unit is adapted to contact printing plate precursors with the developer;

a regenerator unit containing an aqueous regenerator for addition to the developer, the regenerator comprising an organic solvent, a dispersing agent, and an effective amount of at least one strong base such that the regenerator has a greater pH than the developer, wherein the regenerator unit is adapted to controllably deliver an effective amount of the regenerator to the developer unit to maintain the activity of the developer.

38. (Withdrawn) A method for treating an aqueous developer after developing at least a portion of one printing plate precursor, the developer

comprising an organic solvent, a dispersing agent and a weak base, and having a pH between about 8 and less than about 13, the method comprising:

adding to the developer an effective amount of an aqueous regenerator to maintain the activity of the developer, the regenerator comprising an organic solvent, a dispersing agent, and an effective amount of at least one strong base such that the regenerator has a greater pH than the developer.

39. (Withdrawn) The method of claim 38 comprising adding an effective amount of the regenerator to maintain the pH of the developer.

40. (Withdrawn) The method of claim 38 wherein the adding step comprises maintaining the pH of the developer at between about 8 and about 12.

41. (Withdrawn) The method of claim 38 wherein the adding step comprises maintaining the pH of the developer at between about 9 and about 11.

42. (Withdrawn) The method of claim 38 wherein the adding step comprises maintaining the pH of the developer at between about 9.5 and about 10.5.

43. (Withdrawn) The method of claim 38 comprising adding an effective amount of the regenerator to maintain the organic solvent concentration of the developer.

44. (Withdrawn) The method of claim 38 wherein the adding step comprises maintaining the organic solvent concentration of the developer at between about 2 and about 8 weight percent.

45. (Withdrawn) The method of claim 38 wherein the adding step comprises maintaining the organic solvent concentration of the developer at between about 3 and about 6 weight percent.

46. (Withdrawn) The method of claim 38 comprising adding an effective amount of the regenerator to maintain the dispersing agent concentration of the developer.

47. (Withdrawn) The method of claim 38 wherein the adding step comprises maintaining a total dispersing agent concentration at between about 7 and about 15 weight percent dispersing agent.

48. (Withdrawn) The method of claim 38 comprising adding an effective amount of the regenerator to maintain the conductivity of the developer.

49. (Withdrawn) The method of claim 38 comprising adding an effective amount of replenisher and regenerator to maintain the activity of the developer.

50. (Withdrawn) A method for developing a plurality of imaged printing plate precursors, the method comprising:

contacting a portion of at least one imaged printing plate precursor with an aqueous developer comprising an organic solvent, a dispersing agent and a weak base, and having a pH between about 8 and less than about 13;

adding to the developer an effective amount of an aqueous regenerator to maintain the activity of the developer, the regenerator comprising an organic solvent, a dispersing agent, and an effective amount of at least one strong base such that the pH of the regenerator is greater than the pH of the developer; and

after adding the regenerator, contacting a portion of at least one additional imaged printing plate precursor with the developer.

51. (Withdrawn) The method of claim 50 wherein the printing plate precursor comprises a radiation-sensitive composition applied onto a substrate.

52. (Withdrawn) The method of claim 51 wherein the radiation-sensitive composition is laser imageable.

53. (Withdrawn) The method of claim 51 wherein the radiation-sensitive composition comprises a polymeric material.

54. (Withdrawn) The method of claim 53 wherein the polymeric material comprises an acidic or weakly basic functionality.

55. (Withdrawn) The method of claim 53 wherein the polymeric material comprises a carboxylic acid moiety.

56. (Withdrawn) The method of claim 53 wherein the polymeric material comprises an acrylic acid polymer, methacrylic acid polymer or a combination, derivative or copolymer thereof.

57. (Withdrawn) The method of claim 53 wherein the polymeric material comprises a phenolic resin.

58. (Withdrawn) The method of claim 52 wherein the radiation-sensitive composition comprises an infrared absorbing component.

59. (Withdrawn) The method of claim 52 wherein the radiation-sensitive composition comprises a plurality of layers applied onto the substrate.

60. (Withdrawn) The method of claim 52 wherein the radiation-sensitive composition comprises a first layer applied onto the substrate that is soluble in the aqueous developer.

61. (Withdrawn) The method of claim 60 wherein the first layer comprises an acidic moiety.

62. (Withdrawn) The method of claim 60 wherein the radiation-sensitive composition comprises a second layer applied onto the first layer, the second layer comprising a polymeric material that is not soluble in the aqueous developer.

63. (Withdrawn) The method of claim 62 wherein the second layer comprises a phenolic resin.

64. (Withdrawn) The method of claim 50 wherein the at least one imaged printing plate precursor changes the activity of the developer upon contacting the developer.

65. (Withdrawn) The method of claim 50 comprising repeating the contacting and adding steps a plurality of times.

66. (Withdrawn) A method of forming a plurality of printing plates comprising

providing a plurality of printing plate precursors, each precursor comprising a radiation-sensitive composition applied onto a substrate;

imagewise exposing the precursors to radiation to form a plurality of imaged printing plate precursors;

contacting a portion of at least one of the imaged printing plate precursors with an aqueous developer to form a printing plate, wherein the developer comprises an organic solvent, a dispersing agent, and a weak base, and has a pH between about 8 and less than about 13;

adding to the developer an effective amount of an aqueous regenerator to maintain the activity of the developer, the regenerator comprising an organic solvent, a dispersing agent, and an effective amount of at least one strong base such that the pH of the regenerator is greater than the pH of the developer; and

after adding the regenerator, contacting a portion of at least one additional imaged printing plate precursor with the developer to form a printing plate.

67. (Withdrawn) The method of claim 66 wherein the imagewise exposing step comprises imagewise exposing the radiation-sensitive composition with a laser.

68. (Withdrawn) A method of forming a plurality of printing plates comprising

providing a plurality of printing plate precursors, each precursor comprising a radiation-sensitive composition applied onto a substrate;

imagewise exposing the precursors to radiation using stochastic screening to form a plurality of imaged printing plate precursors;

contacting a portion of at least one of the imaged printing plate precursors with an aqueous developer to form a printing plate, wherein the developer comprises an organic solvent, a dispersing agent, and a weak base, and has a pH between about 8 and less than about 13;

adding to the developer an effective amount of an aqueous regenerator to maintain the activity of the developer, the regenerator comprising an organic solvent, a dispersing agent, and an effective amount of at least one strong base such that the pH of the regenerator is greater than the pH of the developer; and

after adding the regenerator, contacting a portion of at least one additional imaged printing plate precursor with the developer to form a printing plate.

69. (Withdrawn) The method of claim 68 wherein the stochastic screening comprises first order stochastic screening.

70. (Withdrawn) The method of claim 68 wherein the stochastic screening comprises second order stochastic screening.

71. (Withdrawn) The method of claim 68 wherein the stochastic screening comprises a hybrid screening.

72. (Currently amended) The combination of an aqueous developer and an aqueous regenerator of claim 1 wherein the first base has a K_b of between about 1×10^{-2} to about 1×10^{-5} and the second base has a K_b of about 1 or greater.